

position is contrary to the specific wordings of the claims, as well as to the teachings of the present specification.

Claim 1 is directed to “a driver circuit for an optical source.” The claim does not require that the driver circuit be an element of an integrated circuit, and thus covers a driver circuit implemented, for example, using discrete rather than integrated electronic components.

Claim 8, in contrast to claim 1, is directed to “an integrated circuit comprising . . . at least one driver circuit.” As a result, claim 8 requires that the driver circuit be an element of an integrated circuit. Moreover, claim 1 is directed to a single driver circuit, while the integrated circuit of claim 8 may include multiple such driver circuits. Independent claims 1 and 8 therefore clearly have different scopes, and thus do not simply “cover the same thing” as alleged by the Examiner.

Claim 16, in contrast to claim 1, is directed to a circuit which includes the improved input stage of the present invention, but is not necessarily a driver circuit for an optical source. Support for this particular arrangement can be found in the specification at, for example, page 9, lines 11-17, which states as follows with emphasis supplied:

It should be noted that the improved input stage described herein in conjunction with FIG. 6 may be used with circuits other than the laser driver circuit of the illustrative embodiment of FIGS. 2 and 3. For example, the input stage may be used in any other type of multi-stage circuit having an input stage with a differential pair comprised of bipolar transistors for which there is a known reverse bias constraint. A limiting amplifier is a more particular example of a multi-stage circuit other than an optical source driver in which the invention may be implemented. The invention can also be implemented in a variety of other amplifier or non-amplifier circuits.

Independent claims 1 and 16 therefore clearly have different scopes, and thus do not simply “cover the same thing” as alleged by the Examiner.

It is therefore believed that the double patenting objection regarding independent claims 1, 8 and 16 is improper, and should be withdrawn.

The Examiner has rejected claims 4 and 11 under 35 U.S.C. §112, second paragraph, as being indefinite because the wording of these claims is allegedly unclear. Applicant respectfully disagrees. Claim 4 states as follows:

4. The driver circuit of claim 1 wherein the input data signal comprises a single-ended input data signal configured for conversion internally to the driver circuit to a differential data signal adapted to control application of the modulation current to the first and second outputs of the output stage.

Claim 11 includes a similar limitation. The specification at page 9, lines 22-25, describes an example of such an arrangement as follows, with emphasis supplied:

Furthermore, although illustrated using multiple differential circuits, a laser driver or other circuit in accordance with the invention can also be implemented using one or more single-ended circuits. In such an embodiment, a given single-ended data signal may be converted to a differential data signal within the driver circuit or other circuit.

Therefore, what is claimed in claims 4 and 11, as is described in the above-cited portion of the specification, is an arrangement in an input data signal is converted, by one or more single-ended circuits within the driver circuit, to the differential data signal that is applied to the input stage. Applicant thus respectfully submits that claims 4 and 11 are compliant with §112, second paragraph.

The Examiner has rejected claim 16 under §112, second paragraph, as allegedly omitting an essential element in the form of a current generator. Applicant respectfully disagrees. Although a current generator is an element of an optical source driver as set forth in claim 1, it was noted above that the specification at page 9, lines 11-17, clearly contemplates that “the improved input stage described herein in conjunction with FIG. 6 may be used with circuits other than the laser driver circuit of the illustrative embodiment of FIGS. 2 and 3.” An example of one such other circuit is a limiting amplifier. A limiting amplifier, in contrast to the optical source driver, does not include a

current generator. Therefore, a current generator is not an essential element of the circuit claimed in claim 16, and the §112 rejection of claim 16 is believed to be improper.

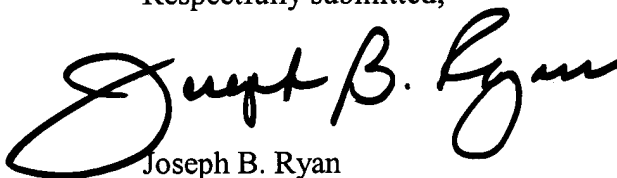
Each of claims 1-18 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,466,595 (hereinafter "Asano") in combination with one or more other cited references. In response, Applicant submits herewith an affidavit under 37 C.F.R. §1.131. The affidavit is signed by the sole inventor named on the present application. The affidavit and the exhibit attached thereto evidence the conception of an invention falling within at least one of independent claims 1, 8, 15 and 16 at least as early as January 24, 2001, and thus prior to the June 7, 2001 filing date of the Asano reference. The affidavit further evidences diligence from the conception to a constructive reduction to practice upon the filing of the present application on November 15, 2001.

Applicant believes that the claims of the Asano reference and the present application are not directed to the same invention and are not obvious variants. Applicant is therefore entitled to overcome the §103(a) rejection using an affidavit under 37 C.F.R. §1.131, in accordance with MPEP §§706.02(b) and 715.

The §103(a) rejections based on Asano should therefore be withdrawn.

In view of the above, Applicant believes that claims 1-18 are in condition for allowance, and respectfully requests withdrawal of the §112 and §103(a) rejections.

Respectfully submitted,



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Enclosure(s): Proposed Red-Lined Drawing Change (2 sheets)  
Affidavit Under 37 C.F.R. §1.131